



9/12

1879.	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	1879.	Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
JAN.	..	..	..	1	2	3	4	JULY.	..	..	1	2	3	4	5
	5	6	7	8	9	10	11		6	7	8	9	10	11	12
	12	13	14	15	16	17	18		13	14	15	16	17	18	19
	19	20	21	22	23	24	25		20	21	22	23	24	25	26
	26	27	28	29	30	31	..		27	28	29	30	31	..	..
FEB.	..	..	..	..	..	..	1	AUG.	..	..	..	..	..	1	2
	2	3	4	5	6	7	8		3	4	5	6	7	8	9
	9	10	11	12	13	14	15		10	11	12	13	14	15	16
	16	17	18	19	20	21	22		17	18	19	20	21	22	23
	23	24	25	26	27	28	..		24	25	26	27	28	29	30
MAR.	..	..	..	..	..	..	1	SEPT.	31	..	..	..	..	..	..
	2	3	4	5	6	7	8		..	1	2	3	4	5	6
	9	10	11	12	13	14	15		7	8	9	10	11	12	13
	16	17	18	19	20	21	22		14	15	16	17	18	19	20
	23	24	25	26	27	28	29		21	22	23	24	25	26	27
	30	31	..	..	..	..	..		28	29	30	..	..	..	..
APRIL	..	..	1	2	3	4	5	OCT.	..	..	..	1	2	3	4
	6	7	8	9	10	11	12		5	6	7	8	9	10	11
	13	14	15	16	17	18	19		12	13	14	15	16	17	18
	20	21	22	23	24	25	26		19	20	21	22	23	24	25
	27	28	29	30	..	..	..		26	27	28	29	30	31	..
MAY.	..	..	..	..	1	2	3	NOV.	..	..	..	..	..	..	1
	4	5	6	7	8	9	10		2	3	4	5	6	7	8
	11	12	13	14	15	16	17		9	10	11	12	13	14	15
	18	19	20	21	22	23	24		16	17	18	19	20	21	22
	25	26	27	28	29	30	31		23	24	25	26	27	28	29
	..	..	..	..	..	..	..		30	..	..	..	..	..	..
JUNE.	1	2	3	4	5	6	7	DEC.	..	1	2	3	4	5	6
	8	9	10	11	12	13	14		7	8	9	10	11	12	13
	15	16	17	18	19	20	21		14	15	16	17	18	19	20
	22	23	24	25	26	27	28		21	22	23	24	25	26	27
	29	30	..	..	..	..	..		28	29	30	31	..	..	..



W. A. Pilsbry

Notes on Clves, Mollusks,  
"Flora"

of  
Iowa City

→ From April 24<sup>th</sup> to August 1<sup>th</sup>.

1880





Figures refer to Coues Check  
list.

S. ~~==~~ " Shimuk.

P. ~~==~~ " P/sby.



1) APRIL 25. (2 ova.)

Sayornis-2. (252-1. Unfinished  
slanter house cliff)

(I) 5 ova, one thickly marked  
one with a dot, and 3 im-  
maculate. (ova 1/2 advanced.

(II) In Line Kilu, above cliff.

252 (c) - 3.

Line Kilu at Sciurus  
region. Inaccessible.

252 - 4. - 5.

Unfinished cliff on upper  
Sciurus region.

252 - 6. + 7.

Crescent stable. (I) 3 fresh ova.

S. + P. Look over: all immaculate.

(II) structure: Diameter outside,

18 3/10 cent. inside 6 1/2 cent. Depth  
outside 8 cent. inside



base of weeds, mud, + mos.  
of dark <sup>red</sup> grass culms(?) + some  
hair; a little silk weed.

(1) *Zora immaculata* <sup>fresh</sup> short; I took  
one: About 1.75 meters high;  
(more clay mud + less moss)  
under shelf of rock by river.  
252-8.

Unfinished: on cliff (low) in  
Bulge region:

*Pandion* ~~Civets~~, (Dead: by cliff. Scimus.)

<sup>shot</sup> *Oryx*. (Pond region's Rapid Creek)

*Dendroica. Yellorum*. abundant

*Linnaea reflexa* (Pond region)

*Helix, profunda, hirsuta,*

*Prodox, clausa multilinea*

*Succinea, oralis, obliqua* (few)

*Dendroica palmeri* (S. shot)

*Sciurus carolinensis* 4 young.

*Pelmona* <sup>all. P. 1819</sup>



(3)

*Hepatica acutiloba*; *Thalictrum*  
*anemonoides*; *Viola pedata*  
*Ranunculus repens*  
*Trillium nivale*; *Dicentra*  
*cucullaria*; *Sanguinaria*  
*canadensis*; &c.

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(4)

May 2<sup>nd</sup>

*Buteo borealis* (1)

Deserted: in upper Catfish  
region. Diameter, outside 9 deci-  
meters. inside  $2\frac{1}{2}$  decim. Deep. outside  
4 decim. inside 1 decim.

Outside of *Quercus rubra* twigs  
of  $\frac{1}{2}$  in. diameter down:

Inside leaves (*Q. rubra*) (ribs of)  
and a little bark:

Contained one ovum.

Tree *Q. rubra*  
about 80 ft.  
high.

{ Minus, Icterus, Pyrranga,  
{ Dendroica &c now abundant



(3)  
May 9<sup>th</sup>  
00

Accipiters (potential) destroyed. (Broken over  
+ torn down)

Sciurus region. (cliff over river)

252 - 4.

contained 5 ova; all but 1 imm-  
-maculate. (Fresh) took & broke 1 (S-I)

" — 5

contained 5 ova, one with  
rather large dots (?) rest im-  
-maculate. (Fresh) took & broke 1,

Harporhynchus rufus ( ) - 1

In Muddy face rec.

contained 4 ova



(8) marked on larger

I took one, + B. took one (tr)

Structure in thick thorn  
bush about 4 ft. high (3 ft.)  
ova fresh.

252 - 9, (Lower Catfish region on  
cliff at cache) Contained  
4 ova, all but one immaculate.  
I took marked one, + I took a  
Cotyle-like one + broke it.

*Picus pubescens*, - 1. Just above cliff  
above Crescent.

Structure in *Ulmus*, (dead top of)  
just finished. Shimuk climbed  
+ cut it open.

*Molothrus pecoris* - 1. Linder boy  
tells me of a *Sayornis* structure  
containing 2 ova of above.



From Crescat.

*Pulmonata Terrestrial & Helicæ, all small*  
*circum, unicolor, clausa (few)*  
*multilineata (few) convasa (")*  
*Pupa —, —, (few)*

(Between this & next family came  
the "Popoide" (shim.) I got about 6.

*Limnæidae, Limnea, reflexa*  
(only one) *L. famularia* (Pilsb.) (the  
common small *Limnea*) I saw  
or 2 new species of *Limnea*.

*Planorbis parvus, confusa, lutea*  
*luteolenta* (Pilsb.) & the

other species of which I had only  
one. also *Physa, Cyclos, valvata*

*paludina* (2 species) *Planorbis*

*bicarinatus, Hyalina limba, &*  
*a few Succinea.* (No drift etc.)



1 clay / May 9

*Arctostaphylos*, *Castilleja*

*occidentalis* (smaller cup), *Campanula*

*rotundifolia*, (small)

also some filices, &c. (Canastota over)

*Orchids* sending up flower

stalk. (*Asplenium thelypteris*)

*Spizella pusillus* - 1 (see upper

muddy face region on south

slope. Structure: about 3-4 in

from ground supported partly

by grass & partly by *Hagels*.

in a small clump of which it

was found. Diameter outside

3-3 1/4 in, inside 2 in. Depth

outside 2 1/4 in, inside 1 1/2 in.

Outside entirely of grass stems



+ a very few blades. Insciola  
of this finer grass (different  
species) + lined with horse  
hair (mostly black + all long) lying  
rather loose + not extending  
to top of structure.

Contained 3 ova. (did not take  
it.)

May 12<sup>th</sup>

*Spizella pusillus* 1.

chick went up to this  
structure + took it. It con-  
tained 4 ova. He took 2 + 2

2. Precocious + traps small de-  
veloped.

*Spizella pusillus* 2. (found by S.  
about 100 yds. from (A).)

Spizella pusillus



11)

May 12<sup>th</sup>

*Spizella pusillus* - 2. (Comparison  
no. 1.) Structure not different  
from nest, contained 3 ova. 1  
one *Melospiza cinerea*. Look all  
undulato avis + structure.

*Spizella* sp. - 1. Shrike got  
Structure + ova (now 4)

*Sayornis* - 15. (one quarry midway  
to mill. 2nd from mill) no ova.

*Cyanurus cristatus* - 1. (In *Cyanu-*  
*norpinus* in our yard) contained  
4 ova. Ground color dark brown  
look 3 ova. Will describe struc-  
ture hereafter, ova fresh

*Melospiza proserpina*. (On *Spizella* - 2)  
pusillus shape. I have seen



May 13<sup>th</sup>

*Tyrannus migratorius* - 1 In front of  
Hawkins) In traps about 10 ft  
high contained 4 fresh ones.  
I took one.

(My friend B. S. and I  
were coming home  
from Society on some  
thing else, and I  
climbed trees.

W.A.S. May 29<sup>th</sup>

May 15

*Sayornis fusca* - 11. under sod  
ice, old quarry west of Cambridge  
4 or 5. all were - 11. mounted



12)

May 16

*Harporhynchus rufus* 4. (In the  
vale that goes N.E. of Rapid  
creek) Saw anis on structure  
as yet no ova. In them time.

+ *Harporhynchus rufus* - 5. (Ups.  
Rapid creek its self.) In  
a screen between two birch  
trees, formed by the breaking  
of the top of one which is cov-  
ered by a grape vine from  
the other. Structure about  
8 ft. high. Contained 4 ova  
markings confluent in ring  
at larger end. I took one.  
Minus ear. (Rapid creek, potential?)



*Alnus carolinensis*. - 1 (In Rapid  
creek region In willows by  
river this side of creek.)

Structure in Salix about  
4 ft. high (structure, not Salix)

Diameter inside, 3 in. Outside

6 in. Depth " 2 " "

4 in. Contained 2 ova. took one

*Alnus carolinensis*. - 2. (about  
50 yds. from above.) In Salix  
about 5 ft. high, 2 ova,  
took one (broke it and above)

\* *Alnus* carr-3 (near Harp-  
-uchus nups 5.) In thorn  
about 6-7 ft from ground  
Outside of course a slough -  
- grass, 3 ova. (took one)



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Agelaius. At confluence of creek  
+ river. Very potential.

Minus (Shinnick) 2 structures in  
hazel patch in rapid region  
near Minus (1).

Turdus mustelinus (Shinnick)  
Structure with 2 or 3 in  
thorn-tree. Very low. N. E. E.

Rapid region. (with crescent in)

Vireo (Shinnick) showed me  
vireo structure in hazel  
region

Sayornis fusca - 12. (Shinnick)  
on Crescent cliff. Young



127  
Pulmonata, principally Limnea —  
(familiaris) dissimulatrix, a few  
Vaccinea, planorbis, (several species)  
among them a very flat small  
one. Hyalina.

Orchidaceae. Found one Cypripedium  
parviflorum.

May 20.

Euclyptus ludoviciana - 1 (H.B. behind  
mills a few ft.) about 7 ft  
high in brown(?) contained  
4 newly marked ova.  
markings very large, ground  
color dark.

Took 2 ova. Fresh



16) May 17<sup>th</sup> '86

*Colaptes auratus* - 1 (Shrike) on  
Crescent bluff. 6 ova. fresh.

1 8<sup>th</sup>

*Spizella cythreothalpus*. (Shrike)

In hollow north of Kip's  
creek. Very well concealed  
contained 3 ova. I have 2.

*Tamias striatus* on edge of Kipid  
creek in low decayed  
stumps contained 7 ova  
I have 3. (small embryos)

*Pyrranga rubra*. 2 structures  
back of crescent.

One contained previous



with 3 immatures one  
and the other 2 one with  
one molting over,  
I have one from last year  
one of the molting ones.  
19th

*Picus pubescens* (Shinnick)  
at a pool creek. 3 seen.  
I have 2. 4 or advanced.  
22nd

*Centurus carolinus* (Shinnick)  
from Roils as on the river  
one fresh. I have 2.

*Turdus mustelinus* } (Shinnick)  
*Sialia sialis*

one seen 9th + 29 last this year.  
I don't see it.



18) May 2 3<sup>10</sup>

(all by myself & Linck)

*Turdus multicolor*. In Radda's  
field in Elm Tree about  
9 ft. high. measured

Diameter outside -  $4\frac{1}{2}$  in.

" inside - 3 "

Depth " -  $2\frac{1}{2}$  "

" outside - 5 + in.

a little used, Nova.

*Mimus car.* <sup>hangs</sup> over the side by upper  
ice house, 5 over.

" " over water <sup>4 ft.</sup> in birch

tree by way first *Tyrannus*. Nova

" " (1<sup>st</sup> on page 13)

contained 4 + used look alike = 5



2 Nov

Harporhynchus, In flower bud  
by roadside boat house.  
4 ft. high. Bover.

Sialia. In s-w. corner of pasture  
of Woodlands. 5 ova. Took one  
Harporynchus. N. W. cor. of  
Scrub. which is N. E. of  
Woodlands. Very thick  
thorny bush. 4-5 ft.  
high 4 ova. Took one  
marked evenly.

Minors. confluence of river  
+ rapid creek in Salix  
6 ft. high. 4 ova. look over.



20)  
Mimus. up the creek 300 yds. from  
last. In low-bush over creek  
4 ova. (long) took one.

" same place as *Zenaidura*  
(*macroura*) In *Salix* 4 ft.  
high. 3 ova.

" up the creek from  
last on hazel about  
5 ft. high 1 ova.

*Zenaidura*. on edge of pond  
up rapid creek. on stump  
in water 2 ova.

both were taken.

Mimus. up *pepilo* creek  
in thorn. 3 ft. high  
3 ova



Pyrauga. opposite Lin-  
-along house, on horizontal  
line of R. alba, con-  
-tained 2 pyrauga ova +  
3 molothrus ova

Diameter outside — in.

“ inside — “

Depth “ “

“ outside “

near all in  
coll.



22) May 2<sup>nd</sup>

*Styela riparia*, below oblongating  
in germing. 3 ft. deep. Some  
broke one.

May 31<sup>st</sup>

*Ponichaea*, In upper Whiskey Gulch, in  
crab tree about 7 ft. high, 3 long.  
dark ova. small marks. one young  
one with a little white clown.

*Harporhynchus*, In central Gulch  
in stone tree 4 ft. high. 1 ovum  
fine markings & evenly over  
a dark greenish-color



*Spizella pusilla*. same place.

In clump of Hazel 1 ft. high  
supported mostly by grass  
diameter inside  $2\frac{1}{8}$  in.

depth "  $1\frac{1}{8}$  "

Yora. B. Shinnick took 142 ticks.  
*Geothlypis trichas*? lower  
down the gulch. near  
pile of brush overhung  
by grass (and) Yora & 1  
*Molothrus* ovum. (see further  
on.)

*Minus carolin.* below the above  
in 1st & 6th (P) & 1st & 2nd trees.  
Young.

lower 2nd & 3rd creek.  
In willow 4 ft. high. Yora



24)

*Mimus carolin.* Overhanging  
crescent cliff. (about) 400.

*Sayornis fusca*. (which contains  
young on May 16. page 14)

Crescent cliff. Iowa. took

one both slightly marked

*Harporhynchus*, On ground between

lindens + Crescent. In clump

of *Quercus alba* sprouts one ft.

high on north hill-side

Structure on ground. Iowa

with slightly confluent marks

took 1.

*Thalassidroma migratoria* west of Rawl's in

large solitary birch. young

2:20. 10 ft higher fork



*Picus pubescens* 100 yds. S.E.C.

of stone pier in terraces

timber over the river.

The load box older tree 6 1/2

in. in diameter about 4

18 ft. high. Hole about

4 " " Diameter of

aperture 1 1/4 in. w. of

inside 3 in. depth from

aperture to bottom 7 1/2 in.

4 over fresh. This made

no racket.

*Certhia carolin.* (page 17)

hole about 14 in deep.

in willow 12 ft high

between house & picket

5 ft. apart.



26)

*Psittularia citrea* on Rapid Creek

" bottom in hole in stump

4 young ones.

*Sinus* ~~indistinct~~ clay bank  
up Rapid Creek a little

young & one over which

Shinnick has.

*Spizella pusilla*. up Rapid.

young & one over which  
Shinnick has

*Parn.* in post on north side  
of Rapid Creek bridge

full complement of  
deserted broken ova, 2 +

1 chick got some.



27/

*Homaloea vestiva*, 4 ova  
2 got 1 + 1 same K 1.

*Succinea* up rapid creek  
got bottles of them,  
alive.

*Cheloniana*. - saw lots of  
above dead + alive.

Got no *Geophila*.

May ~~June~~ 7<sup>th</sup> 31<sup>st</sup>

*Mimos* ~~cassia~~. Large tree in  
yard. 3 ova.

*Crothlypis* *Nichas* (Page 23)

Shinnick took ova.

2

6 ova, Shinnick

took some.



*Sturnus vulgaris* in "Cypress  
 hollow" 5 or 6 + 4 no cottons,  
*Polioptila caerulea*, unfurnished  
 - trachea in Ukus.

June 1<sup>st</sup>.

*T. migrator*, in cotton wood  
 (pink)  
 over on green *H. sax.* look!

June 6<sup>th</sup> 30

*Alnus* above 1<sup>st</sup> beehouse & below 1<sup>st</sup>  
 fence on mill road in birch & 910 ft  
 vine, tipped over 4 or 5.

" Just above 1<sup>st</sup> fence on  
 thorn br., none as yet

" below line Kiln. 4 young  
 ones.



29)

*Tyrannus car.* in "ice" bending  
over river. 8-9 ft high below  
beginning of woods & above 2<sup>nd</sup>  
ice house. 3ova. I have one  
with streaks of red. no light  
marks.

" In mill bottom (coral hill)  
in solitary *Cyanocor.*

25 ft. high on horizontal  
limb. 4ova. took 2.

*Mimus*, in bush in fallen  
top of tree (soon) in opening  
in timber below coral hill  
opposite rocky shore. 3ova.  
*Cyanospiza* above cliff (Papa)  
10 am + 1 av. 10.

*Setophaga* " 10 am + 31  
4 ova in stone



30

*Orlyx*, found on east side of a  
tree etc. (see on farther)

*Sargurus fuscus* in *Hila* (subp.)

1 ) 5-6 all immaculate  
but one which is thickly  
marked, far advanced,

31)

June 13<sup>th</sup>

*Donnera activa* (S. L. L.)  
- in Buckwood + paper  
12 ft. high over pendant line  
1 young one could almost  
fly. Male made a "chick"  
low sound like this

*Zenaidura macroura* in upland  
migr. 1/4 mile below last  
structure 14 ft. high. I saw  
one took note



*Coccyzus americanus* south of  
 last  $\frac{1}{2}$  mile in New River 10 ft  
 high. 2000 white birds say  
 hatched in the next 3 days.  
*Ardea herodias*, 2 in willow  
 near boat landing 20 ft high  
 1000 for a lancelet.

*Tringa* com. opposite 3000  
 on hanging water. 4000 short  
 with small marks. (11<sup>th</sup> mark)

" " up above  
 creek on north side of eddy  
 3000 much like last both now

*Agelaius*. Any amount of  
 streaks. 1 with 4 young  
 young ones, 1 " 3 "

33)

1 + 1 ovum (like 2 ovum)  
1 with 4 ova  $\frac{1}{2}$  advanced.  
with all in large egg 1.  
have 2 of these.

Tringoides on 6<sup>th</sup>

4 ova far advanced

June.

Collins. 4 ova. 2 have 2, from  
Hedge-larvae, at Greenhouse

June.

Erythroneura alpestris 4 ova  
in potato patches  $\frac{1}{2}$  advanced.



34) 20th June

*T. migrator*. in *Ulmus americana*  
north of mill over "stream" 7 ft.  
high on horizontal limb. 2 or  
3 in all. (fresh)

*Pyrausta rubra*. south of road to  
join point on chain road &  
north of "stream" 7 ft. 3 in all.  
I start with fine marks  
2 typical. 2 *Pyrausta* <sup>(typical)</sup> ~~also~~  
1 of each broken on ground.  
In *Ulmus alba* limb  
horizontal 7+ ft from tree  
7 ft high, not directly on  
limb but on twig bearing  
lateral of twigs (most fresh)

3

East of Crescent

House + N.E. of

"

Spring near fence, in d. alba  
12 ft high. structure  
directly on limb 5 ft.  
from top. 1000000 very  
dark.

Minus - on west side of  
river opp. north end of cliff  
overhanging water. 3000.

" north of cultish  
in stone tree 7 ft high.  
3000

Gouaplas. (top of this page.) structure  
slanted, some decayed



36

Onchology of Japan 20 78

New Linnæidae,

Linnæa - L. decidua, L. L. L.



whorls 6 very convex surface deeply impressed lip widely appressed on columella striae obscure. Figure too cor- pulent & differ from all others in entire. (many)

Physa -



Distinguished by shape of columella & by upper part of lip.

Many (?)



Extremely obtuse, whorls few numerous

371



convey  
whorls to apex

elongated acute columella  
very much twisted  
only one found

---

*Planorbis exacutus*



(numerous)

---

Several other Physae +  
Limeae.

Got tipped over.

" Cyprapoliems (pink) on

north hillside above catfish

Sphaerium young



38 June 2<sup>nd</sup> 1896.

General route. started at noon  
went north on road as far as Roubidoux  
then went west most to river  
then north along cliff & got Filice  
then went swimming & east along  
a little hollow & out to road  
then we crossed pool & went south  
along hollow that comes out at  
old stone mine cellar by Lammings  
then found cat north end —

*Spizella pusilla* — I took 1. but  
with clover & a few little  
bushes near 4000. Shunk took  
one & I took 2. (fresh.)  
And by the 1st fence I found

39

Vireo olivaceus with 4ova

large markings in Luteo-  
nubra. (far advanced)

Turdus mustil. (on Liriodendron  
diameter 2+ ft.) 30 ft. high +  
10 ft from tree on ascendant  
limb, 3 young. { this is between  
lines 3 and 4  
on preceding  
page

Turdus mustil.

$\frac{1}{2}$  way up cliff  
(line 4) on horizontal limb  
3ova,

June 29<sup>th</sup>.



49) July 3rd.

After breakfast I went up to the  
mine & to the mine. Found just  
above the house (N.E.) the entrance of  
Mines. some places a promising one  
but 1 ft. higher. 4000.

July 4th.

Started early & went to the  
by road. then took boat & went to  
the camp where Skunk got  
& didn't get in till I got to the  
went in swimming at day. got it in  
thence went up to Turkey creek on  
the way I found Sandvica with  
young, we went up creek(?) & came  
out on side thence went up to  
where it leads to west & climbed.

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over cliffs around with R.R. as  
in week 2 found mining, 3000.

found cave in cliffs. Lots of  
rocks, mined like 4 - coming  
down. got home at 4.

(Sialia 5000 east of Crescent 1/2 mile)





Link and Lyrauga, B.M.  
 near place where we found *Vicia*  
*pubescens* + *lyrauga* + c.



*Truncatella corticaria* (Lam.)  
 Very small cylindrical white  
 aperture small a small hole  
 on pedicle with a small prom-  
 inence on collumella for with  
 Lips not reflected on body  
 whorl as in *P. unifer*. +  
 outer inferior bevel angular  
 as in plate, striae fine.

93

Classification of Terrestrial  
Order Pulmonata.

Section. Adelopneumona.

Suborder Geophila.

Family Succinidae

Genus Succinea

Family Helicellidae

Macropetis (Beck)

Hyalina (Fon)

Strobila (Morse)

Patula (= Anguispira) (Noll)

Helicodiscus (Morse)

Family Helicidae

Mesodon (Rafin)

Urosalpinx (Albers)

Trochospira (Rafin)

Stenotrema



Family Pipidae

Pupa = Limulidae

Family Limacidae

Limax

Section-Phaneropneumona.

Suborder Ectopneumona.

Family Helicinidae

Helicina

---

Suborder Limnophila

Family Limnadae

Limninae !

Planorbinae

Ancylinae

Valvulininae

My classification of Geophila,  
Order Pulmonata.

~~Order Geophila~~

Section Adelopneumona

Suborder Geophila,

Family Helicidae.

Helicinae

Helicellinae

Succineae

Pupinae

Limacinae

Section Phaneropneumona

Suborder Ectopathalmia,

Family Heliciniidae

Genus Helicina.





47 posterior angle rounded (?)

My specimens from Eddy.

(July 20) Animal retired & adhering  
to grass & leaves.



*Buccina ovalis*. (Gould)

Light golden or straw-colored  
striae very fine, whorls joined  
in very laminae, irregularly placed  
such as below Coralville Iowa  
where I & Mr. Gould found them  
April - 1846. Also one from  
Creek (Type (fig 8.) in *Pupa*  
*marginalis* Cox.)





(No good.)

*S. obliqua**Eccinea yovanni* (name very doubtful!)

Fossil & bleached (in clay deposits with *Helicoma* acuta, *Stula cooperi*, *Patula* — ? & several *Eccineas* not so coarse & striate as *S. obliqua*. Future differs & one more whorl than former, callus on columella

*Eccinea bippiana* & *Eccinea bippiana*

There we get round no line specimen of this. In color it is most a dark a. *Helicoma*

7819. Last species the same is  
very doubtful.

(*Somatopygus*) or —



*Somatopygus* *integrus*, by S.

Indiana 1894

Size to the last very large.  
inflated. Aperture  
could oval but a little  
flattened by compression.  
Umbilicus larger than  
*P. integrus*. Lips poster-  
iorly well rounded. &  
usually not appressed  
on body whorl.

Lips apparently not  
partaking of coloration  
peculiar to *Helicina*  
and especially *Helicina*.

Col. Katter - *Helicina* *integrus* *integrus* *integrus*



extremely abundant  
at  
the city.



*Paludina integra*  
Common on the shore, etc.

Height 6 to 6 1/2 (inches)

not increasing as  
in lust, but striae irregular  
+ period of growth apparent.  
Other striae wavy(?) or  
absent. Lip anteriorly  
rounded + sharply angulated  
posteriorly. Columella flat  
+ slightly arched(?)

Umbilicus a mere clinch.  
Lip appressed on columella  
from umbilicus back. Color is  
an olive(?) green (Very common  
at low water)

51

③ *Lepa* (Kollig?) ———?

Found August 6<sup>th</sup> '88  
about  $\frac{1}{2}$  mile south  
of Hartman in woods in  
mound at foot of tree.

Shiæ not so fine as *Lupa*.  
*costicaria*. pellucid, white.  
One long curved lamina  
-bar both on columella  
extending far into the  
shell. Whorls 5; aperture  
round. " rapidly  
decreasing. Body whorl  $\approx$   
 $\frac{1}{2}$  total length  
breadth equals about  
 $\frac{1}{2}$  length also.



52 August 6<sup>th</sup> (Friday)  
saw plenty of *Corvus* (anytime)  
but very few *Eurhynchus*  
where last spring they  
were on every fence.

(Himantus) *Petrochelidon*  
being ones very nume-  
-ous at Hartmans, also  
one structure on a school  
house the 2<sup>nd</sup> one north  
of S. Liberty, which I  
knocked down, it con-  
-tained fragments of an  
ovum which I secured  
together with the struc-  
-ture. (See below description)

Saw dozens of *Melanospiza*  
*synthorpeana*.

53 It must be a good place  
for owls. and perhaps  
also Accipiter cooperi  
(flying over Hartman's) +

### Corvus

Saw spindled little  
flycatcher (Empidonax?)  
crested, plumbeus (?).  
yellowish suffusion (?).

Saw no positive markings.  
Among shells were Helix  
alternata (2), Large Limax  
with light markings (3)  
Bupa corticaria (2) a Verigo  
in form like V. gouldi, but  
unidentate, Hyalina —  
H. — + Pupa — ? (small)



# *Pithulicora lunifrons*

Structure composed of a few  
twigs (very small), seaweed,  
(grass), roots of various kinds  
+ weed stems (fine). Very  
abundant of spiders +  
young spiders.

This is from the school  
house. The kind of bottle  
shaped structure is  
always (?) black + brown  
and from sloughs +  
patters.

Young are now flying  
about in great numbers.  
Received payment of some

55 Test is longer & sharper. 1

Zonites a bonus, Say.

② Hyalina ——— ?

Whorls 4. Apex has this appearance & is  
surface rather shallow.  
Striae more apparent  
above than below, but  
to eye apparently wanting  
growth lines very apparent  
spire more elevated  
than Macrocyclus.

③ natural size.

④ Dorsal view.

⑤ good(?) view of  
Aperture. found same  
place as Pupa (Page 51)





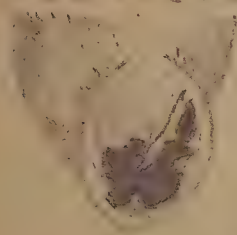
No good.



Apertures having  
teeth | columellar  
teeth too altered

All are throat teeth but the columella  
 which is sinuous + sinuellar.  
 About the middle it bears  
 a square projection toward  
 outer lip opposite a low  
 tubercular tooth on latter.  
 Umbilicus perforate. Lip widely  
 reflexed, but not as in  
 L. marginalis.

Cylindrical, obtuse, & about  
 2 1/2 times as long as wide.  
 Surface rather steep (2X?)



Critically examined  
 with naked eye the  
 aperture appears toothed

51) then; first on posterior  
(outer) angle a long  
lamellar tooth extend-  
ing from aperture to  
the base with a projection  
on outside, next far-  
within a tubercular  
tooth almost opposite  
latter, then, a larger  
one on the extreme an-  
terior. Then another  
farther in opposite the  
2<sup>nd</sup>, and a few small  
remote ones between  
last & 1<sup>st</sup>.

All teeth but 1<sup>st</sup> are very  
remote. ~~now~~  
Pupa armifera



~~Fupa (Succinea) pallens~~

August-22.

Went to catfish  
pond, in afternoon,  
got lots of Physa  
Limnaea & planorbis  
planorbis granatus

+ a beautiful  
one (S. Higginsoni)

August-29

It- rained all  
day, I got  
out marine  
macrobranchia  
&c.

Sept- 5th

Shinnick went  
Hunting. I did  
not see him



A day,  
afternoon  
I went to  
crescent & got  
*Helix perruginea* (1)  
" *monodon* (5)  
" *hirsuta* (about 4)  
" *attenuata* (3)  
*Macroychia* 1 like one  
1 *H. clausa*

Of these, the  
2nd, 3rd, & 4th  
were alive, also  
a very large herring

---

In morning I  
read Thackeray's  
W.

---

Wages raised on  
+ after Sept 4th  
to \$2.50 per week



Linnaea

Hamilis

(7)

Hamilis

Hamilis

Hamilis

(8)

Hamilis

Hamilis

Hamilis

(9)

Hamilis

Hamilis

(10)

Hamilis

Hamilis



Hamilis

Hamilis

back from the nose,  
above indicated the  
coronoid process not so  
distinct as last - whole,  
but on the spine being  
shouldered above and  
another below, 3 1/2  
the indistinct corina  
below

---

⑤ P. — ? jaw-like  
crest, except - no trace  
of corina below, not  
nearly so confluent,  
least - whole not so  
much descending Corina



above not so well  
defined, Striation more

regular + heavy,  
lips thickened with  
cuticle presenting no  
tuberculations!!!  
what except  $1\frac{1}{2}$  not shouldered  
as in last.

(6) Planorbis — 92



very flat, whole of  
apice not shouldered (comp  
187 mm)



most easily identified  
by the regular appearance  
of base, which is not  
more depressed than  
in my largest - P. bicarinatus  
Apex only moderately  
depressed.



P. lauribis — ??

Same shell on a  
larger plan.  
Absolutely no tangible  
difference.

~~~~~

Above(?) carinated sharply  
perfectly symmetrical.



rather coarse striation

Same, but not carved  
+ less symmetrical

very unsymmetrical

100

... were ...  
... their parents were ...  
... order to save them ...  
... numerous late, discharged ...  
... bankrupts, debauchees, and ...  
... class, — people more apt to ...  
... to promote the well ...



|        |      |      |      |       |      |       |    |
|--------|------|------|------|-------|------|-------|----|
| 1880.  | JAN. | FEB. | MAR. | APRIL | MAY. | JUNE. |    |
| Sun.   | 4    | 1    | 29   | 28    | 25   | 30    | 27 |
| Mon.   | 5    | 2    | 22   | 29    | 26   | 23    | 20 |
| Tues.  | 6    | 3    | 23   | 30    | 27   | 24    | 21 |
| Wed.   | 7    | 4    | 24   | 31    | 28   | 25    | 22 |
| Thurs. | 8    | 5    | 25   | 1     | 29   | 26    | 23 |
| Fri.   | 9    | 6    | 26   | 2     | 30   | 27    | 24 |
| Sat.   | 10   | 7    | 27   | 3     | 31   | 28    | 25 |
|        | 11   | 8    | 28   | 4     | 1    | 29    | 26 |
|        | 12   | 9    | 29   | 5     | 2    | 30    | 27 |
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|        | 16   | 13   | 3    | 9     | 6    | 4     | 31 |
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|        | 19   | 16   | 6    | 12    | 9    | 7     | 3  |
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